2010-12-15 Wednesday Morning Notes

Wednesday, December 15, 2010
7:28 AM

Stacking and Transfers

- Stacked 25.7mA/hr with a production of 20.27 pbar/Mp with 8.14 Tp on target.
- Unstacked 513E10 in 60 transfers over 20 sets with an average efficiency of 95.6%.

Interesting Happenings

- AP1 and AP2 BPM reboot? http://www-bd.fnal.gov/cgi-mcr/elog.pl?nb=2010&action=view&page=943&anchor=053144&hilite=05:31:44-
- I:HVF11 "excessive 60Hz fault" http://www-bd.fnal.gov/cgi-mcr/elog.pl?nb=2010&action=view&page=943&anchor=061515&hilite=06:15:15-

Numbers

- Stacking
  - Pbars stacked: 523.72 E10
  - Time stacking: 22.53 Hr
  - Average stacking rate: 23.25 E10/Hr

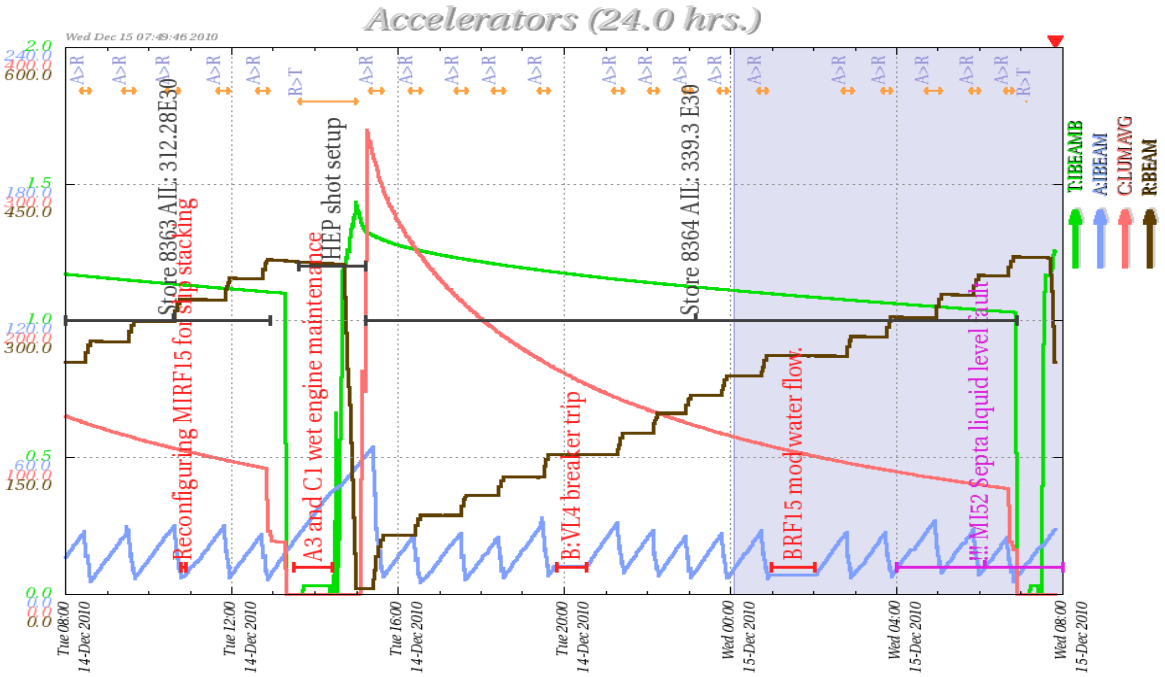
- Uptime
  - Number of pulses while in stacking mode: 34291
  - Number of pulses with beam: 32157
  - Fraction of up pulses was: 93.78%

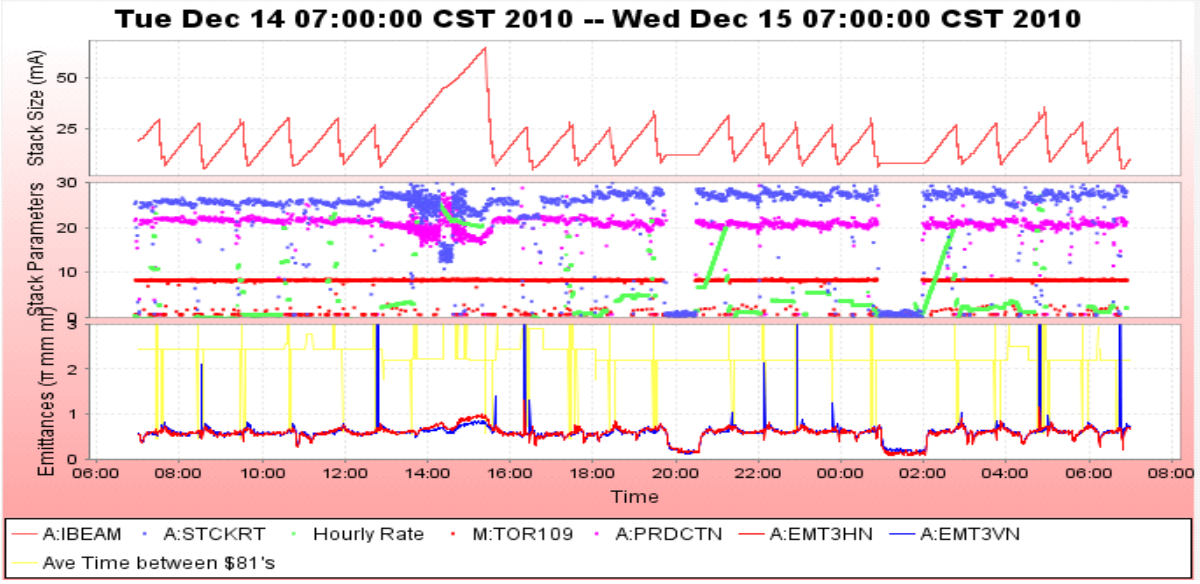
- The uptime's effect on the stacking numbers
  - Corrected time stacking: 21.13 Hr
  - Possible average stacking rate: 24.79 E10/Hr
  - Could have stacked: 558.48 E10/Hr

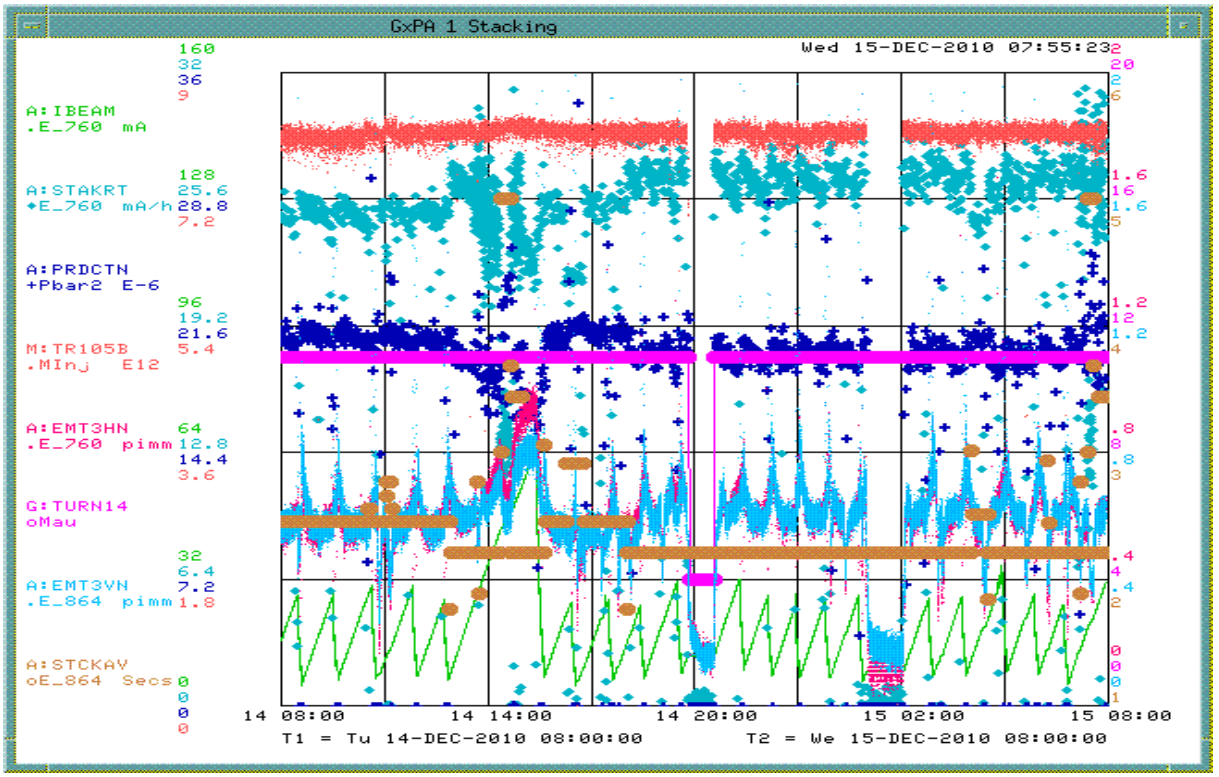
- Recycler Transfers
  - Pbars sent to the Recycler: 501.47 E10
  - Number of transfers : 61
  - Number of transfer sets: 20
  - Average Number of transfer per set: 3.05
  - Time taken to shoot including reverse proton tuneup: 00.21 Hr
  - Transfer efficiency: 95.36%

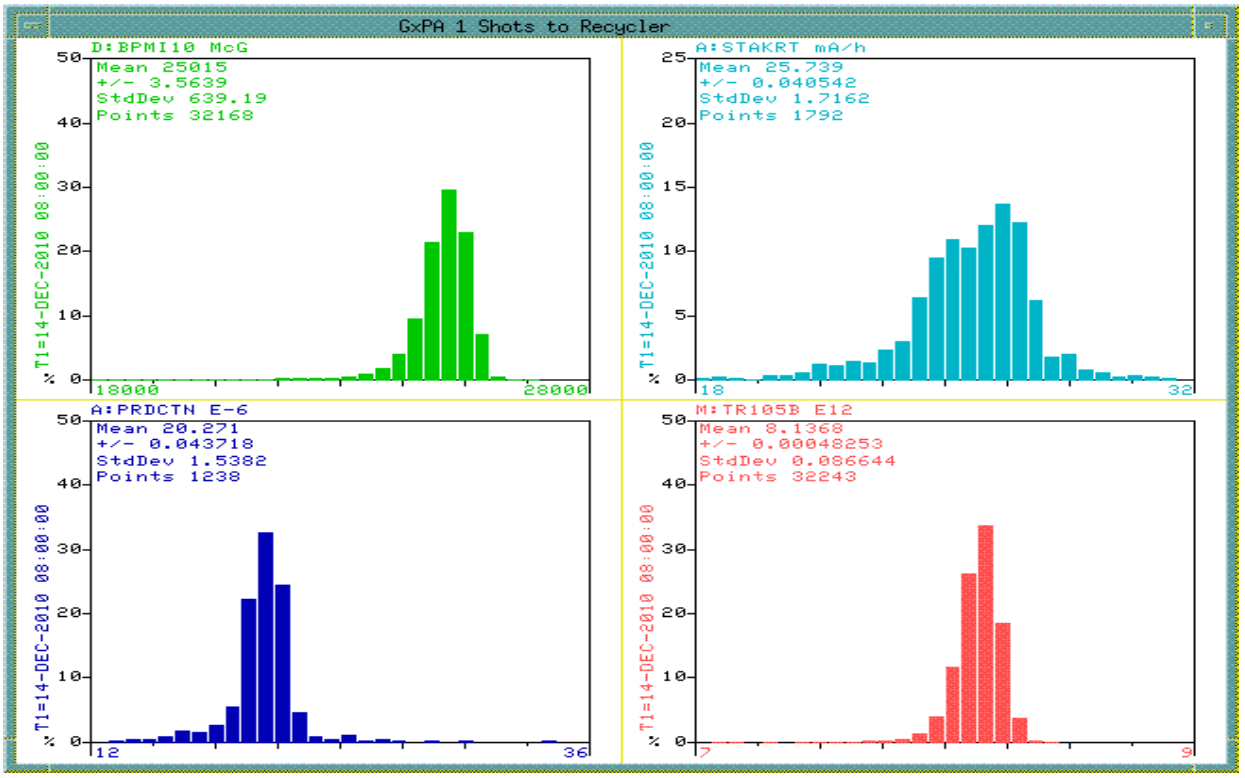
- Other Info
  - Average POT : 8.13 E12
  - Average production: 20.02 pbars/E6 protons

Plots

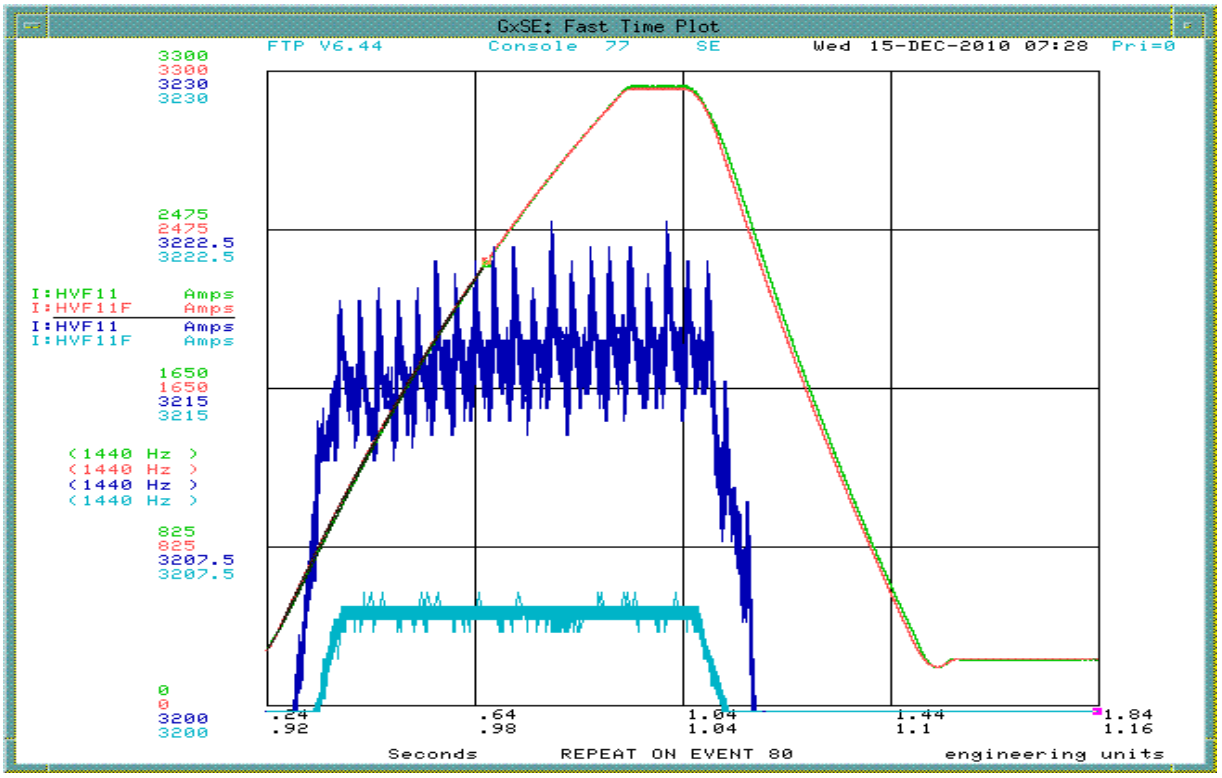

Accelerators (24.0 hrs.)
Wed Dec 15 07:49:46 2010
Store 8363 AIL: 312.28E30
Reconfiguring MIRF15 for ship stacking
A3 and C1 wet engine maintenance
HEP shot setup
B:VL4 breaker trip
Store 8364 AIL: 339.3 E30
BRF15 mod water flow
MI52 Septa liquid level fault
T:IBEAMB
A:IBEAM
C:UMAVG
R:BEAM
Tue 08:00 14-Dec 2010
Tue 12:00 14-Dec 2010
Tue 16:00 14-Dec 2010
Tue 20:00 14-Dec 2010
Wed 00:00 15-Dec 2010
Wed 04:00 15-Dec 2010
Wed 08:00 15-Dec 2010

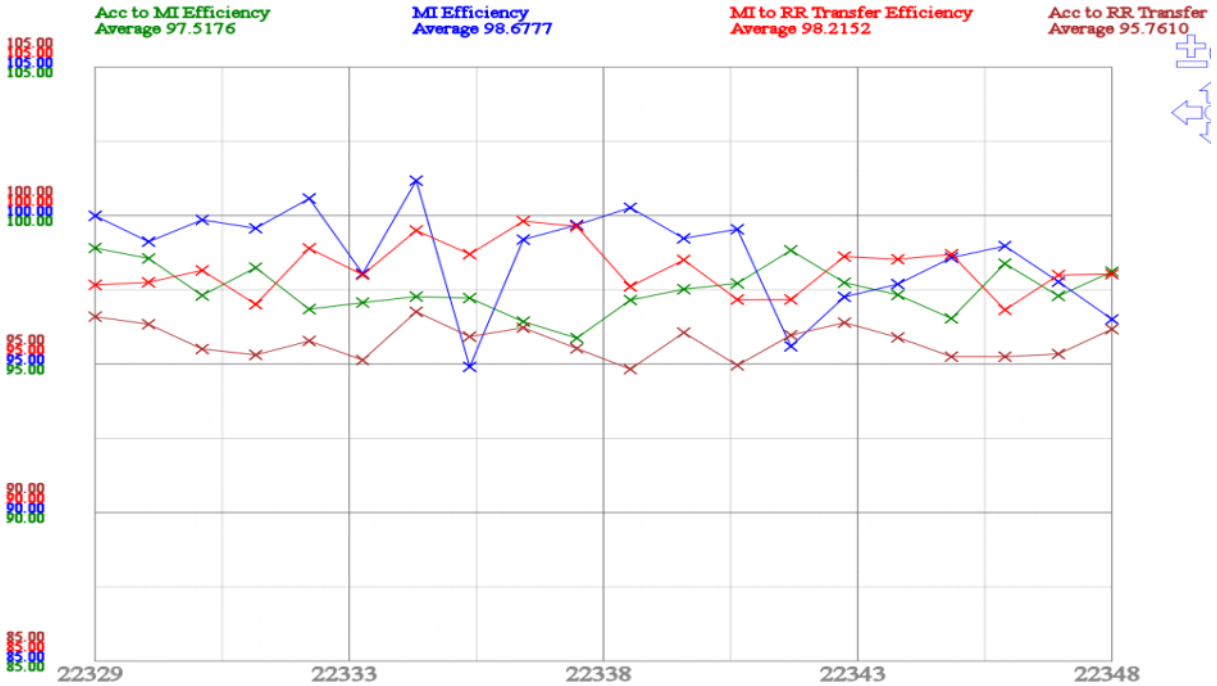

Tue Dec 14 07:00:00 CST 2010 -- Wed Dec 15 07:00:00 CST 2010
Stack Size (mA)
Stack Parameters
Emittances (π mm mr)
Time
A:IBEAM
A:STCKRT
Hourly Rate
M:TOR109
A:PRDCTN
A:EMT3HN
A:EMT3VN
Ave Time between $81's


GxPA 1 Stacking
Wed 15-DEC-2010 07:55:23
A:IBEAM
.E_760 mA
A:STAKRT
+E_760 mA/h
A:PRDCTN
+Pbar2 E-6
M:TR105B
.MInj E12
A:EMT3HN
.E_760 pimm
G:TURN14
oMau
A:EMT3VN
.E_864 pimm
A:STCKAV
oE_864 Secs
14 08:00
14 14:00
14 20:00
15 02:00
15 08:00
T1 = Tu 14-DEC-2010 08:00:00
T2 = We 15-DEC-2010 08:00:00


GxPA 1 Shots to Recycler
D:BPMI10 McG
Mean 25015
+/- 3.5639
StdDev 639.19
Points 32168
A:STAKRT mA/h
Mean 25.739
+/- 0.040542
StdDev 1.7162
Points 1792
A:PRDCTN E-6
Mean 20.271
+/- 0.043718
StdDev 1.5382
Points 1238
M:TR105B E12
Mean 8.1368
+/- 0.00048253
StdDev 0.086644
Points 32243
T1=14-DEC-2010 08:00:00

PA S53 DIGITAL STATUS
S53 DIGITAL STATUS
parm *SA X-A/D X=TIME Y=C:BOILUM,C:DOFLTL,C:FBIPNG,C:FBIANG
*save ---- Eng-U I= 0 I= 0 , 0 , 0 , 0
One+ AUTO F= 3600 F= 409.583, 400.38 , 13073.5, 3958.3
.global. .linac.. .booster ...mi... ...tev.. ...sy... .p-bar.. .misc... collider
Pgm_Tools
AGG CONTRL
*RESET
*ON
*OFF
I:HVF11 P2 PS DIPOLES F11A &F11B
See Alarm Log
More Info
Ctrl-Menu
LOCAL/REMOTE REMOTE
FILTER RACK TRIP SUM OK
LOAD TRANSFER SW TRIP. OK
SAFETY SYSTEM OK
MAGNET TEMPERATURE OK
EXCESSIVE 60HZ FAULT
DC OVERCURRENT OK
WATER OVERTEMPERATURE OK
SCR OVERTEMPERATURE OK
DOOR INTERLOCK OK
GROUND FAULT OK
INTERLOCK SUM FAULT
DC ON OFF
AC ON ON
V -2-G TRIP SUMMATION OK
PS EXCESSIVE RIPPLE OK
PS OVER VOLTAGE OK
PS +VOLT TO GROUND OK
PS -VOLT TO GROUND OK
BYPASS SCR OFF ON
RECTIFY SCR ON OFF
POS/NEG LIMIT OK
TIMING GEN LOCK OK
60HZ SYNC OK
120HZ FEEDBACK ON
FAST FEEDBACK ON
*On
*Off
*Reset
*Pol+
*Pol-
Local
Alarm is
ALARMING
Speech is
BYPASSED
Edit
Messages


GxSE: Fast Time Plot
FTP V6.44 Console 77 SE Wed 15-DEC-2010 07:28 Pri=0
I:HVF11 Amps
I:HVF11F Amps
I:HVF11 Amps
I:HVF11F Amps
(1440 Hz)
Seconds
REPEAT ON EVENT 80
engineering units



Column 1 Number_0_Pbar Transfer Shot #	Column 4 Number_3_Transfer Time		Column 21 Number_20_A:IBEAMB sampled on $91 (A:BEAM7), E10	Column 22 Number_21_A:IBEAMB sampled on $94 (A:BEAM9), E10	Unstacked (mA)	Column 23 Number_22_R:BEAMS (R:BEAME0[0]) pre xfer E10	Column 24 Number_23_R:BEAM (R:BEAME0[1]) post xfer, E10	Stashed	Acc to RR Eff	Acc to MI Eff	Acc to MI2 Eff	Acc to MI * Acc to MI2 Efficiency	Transfers	Sets	Column 5 Number_4_Acc Horizontal Emittance	Column 6 Number_5_Acc Vertical Emittance	Column 8 Number_7_Acc Longitudinal Emittance
	Totals =>				513.04			490.63	95.63%	97.53%	96.34%	93.96%	62	20	5.9076	5.7565	1.9317
	Daily Average =>				513.04			490.63					62	20			
22348	Wednesday, December 15, 2010	6:40	25.47	5.31	22.26	349.52	370.61	21.37	96.00%	97.93%	94.71%	92.75%	3	1	5.114	5.429	1.894
22347	Wednesday, December 15, 2010	5:51	28.34	7.90	23.14	328.54	350.29	22.06	95.35%	97.38%	95.16%	92.66%	3	1	6.068	6.062	1.974
22346	Wednesday, December 15, 2010	4:57	32.98	8.70	26.91	303.84	329.21	25.60	95.14%	98.22%	97.14%	95.42%	3	1	6.502	6.099	1.933
22345	Wednesday, December 15, 2010	3:45	27.73	7.44	22.98	282.72	304.45	21.92	95.39%	96.53%	95.07%	91.77%	3	1	6.149	6.042	1.972
22344	Wednesday, December 15, 2010	2:47	27.24	7.16	22.75	261.55	283.18	21.76	95.65%	97.35%	95.96%	93.41%	3	1	6.354	6.289	1.975
22343	Wednesday, December 15, 2010	0:45	27.97	5.97	23.81	239.52	262.18	22.89	96.12%	97.48%	95.03%	92.64%	3	1	5.375	5.364	1.901
22342	Tuesday, December 14, 2010	23:48	26.85	7.20	22.30	218.63	239.84	21.42	96.02%	98.31%	95.26%	93.65%	3	1	5.856	5.99	1.94
22341	Tuesday, December 14, 2010	22:56	25.72	7.03	21.33	198.61	218.88	20.34	95.33%	97.82%	97.58%	95.45%	3	1	5.936	5.733	1.949
22340	Tuesday, December 14, 2010	22:08	27.97	7.64	23.01	176.95	198.89	22.11	96.09%	97.70%	96.67%	94.44%	3	1	6.213	5.886	1.947
22339	Tuesday, December 14, 2010	21:17	31.90	8.90	25.70	153.02	177.21	24.35	94.74%	97.27%	97.18%	94.53%	3	1	6.321	6.044	1.942
22338	Tuesday, December 14, 2010	19:30	31.63	8.02	26.26	128.48	153.35	25.07	95.49%	96.02%	95.64%	91.83%	3	1	6.259	5.893	1.946
22337	Tuesday, December 14, 2010	18:25	25.36	6.82	21.20	108.40	128.68	20.39	96.18%	96.64%	95.87%	92.65%	3	1	5.927	5.507	1.94
22336	Tuesday, December 14, 2010	17:30	26.71	6.54	22.77	86.77	108.55	21.85	95.98%	97.40%	93.15%	90.72%	3	1	5.641	5.187	1.949
22335	Tuesday, December 14, 2010	16:24	25.99	5.13	23.04	64.73	86.91	22.28	96.70%	97.75%	98.39%	96.18%	3	1	4.822	5.305	1.906
22334	Tuesday, December 14, 2010	15:24	65.00	7.07	62.72	6.48	64.94	59.34	94.61%	96.99%	95.50%	92.63%	5	1	6.991	6.291	1.852
22333	Tuesday, December 14, 2010	12:44	26.74	6.43	22.89	345.99	367.49	21.94	95.88%	97.01%	97.06%	94.16%	3	1	5.687	5.581	1.93
22332	Tuesday, December 14, 2010	11:50	30.40	7.41	25.53	323.01	347.12	24.36	95.42%	98.25%	97.71%	96.00%	3	1	6.13	5.797	1.931
22331	Tuesday, December 14, 2010	10:38	30.44	6.87	25.95	299.39	323.96	24.81	95.62%	97.67%	97.77%	95.50%	3	1	5.736	5.775	1.923
22330	Tuesday, December 14, 2010	9:31	28.11	6.54	24.11	277.23	300.16	23.23	96.35%	98.65%	97.71%	96.39%	3	1	5.831	5.525	1.916
22329	Tuesday, December 14, 2010	8:28	27.95	5.18	24.39	254.68	277.92	23.54	96.52%	99.01%	98.91%	97.94%	3	1	5.239	5.331	1.913